REMARKS

Reconsideration is respectfully requested. Claims 1-3 are present in the application.

Claim 1 is rejected under double patenting, as allegedly claiming the same invention of claim 1 of prior U.S. Patent 6,643,312. The Examiner says that priority under 35 U.S.C. 102(g) and possibly 35 U.S.C. 102(f) must be resolved. Applicants respectfully traverse.

Claim 1 of the present application and claim 1 of U.S. 6,643,312 are not identical with each other. They are not directed to "identical subject matter". The reason for this is that claim 1 of `312 includes limitations not found in claim 1 of the present application.

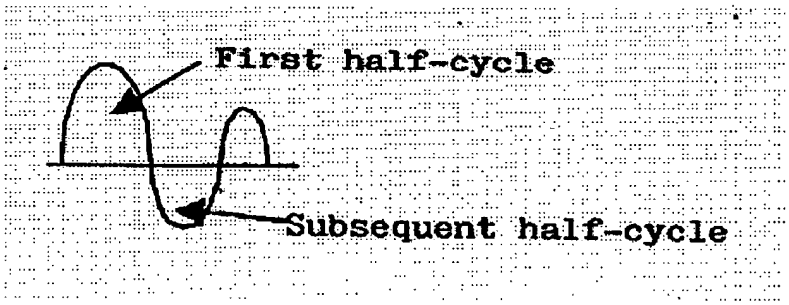
> 1. An ArF excimer laser device comprising:
>
> a laser chamber;
>
> a magnetic pulse compression circuit having an output terminal;
>
> a pair of laser discharge electrodes disposed in the laser chamber connected to the output terminal of the magnetic pulse compression circuit; and
>
> ***a peaking capacitor that is connected in parallel with said pair of laser discharge electrodes;***
>
> ***wherein said device further comprises a means to provide a primary current that infuses energy from the magnetic pulse compression circuit to the discharge electrodes via the peaking capacitor overlaps a secondary current that infuses energy from***

> ***a capacitor in the final stage of the magnetic pulse compression circuit for charging the peaking capacitor to the discharge electrodes, an oscillation cycle of the secondary current being longer than an oscillation cycle of the primary current;*** and
>
> wherein a pulse of laser operation is effected by an initial half-cycle of the discharge oscillation current waveform that reverses the polarity of the primary current being overlapped by the secondary current and ***by at least two half-cycles*** continuing thereafter.

The bold/underlined/italic portions of the above claim are not present in claim 1 in this current application. The claims of the issued patent and this application cannot therefore be said to be drawn to identical subject matter.

Applicants wish to explain the subject matter of claim 1 in the present application.

Claim 1 of the present application uses not only the first half-cycle of the oscillating current flowing between the discharge electrodes but also at least one half-cycle subsequent to the first half cycle to sustain the laser oscillating operation to thereby achieve a long pulse.



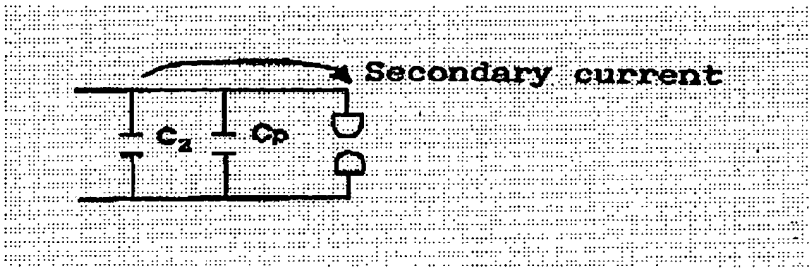
Conventionally, only the first half cycle of the oscillating current is used for laser oscillation, and attempts have been made to extend the pulse width of the first half-cycle for the purpose of achieving a longer pulse width. Please see the specification of the present application.

Therefore, claim 1 of the present application is an epoch making invention in that at least one half cycle subsequent to the first half cycle is utilized for laser oscillation.

On the other hand, claim 1 of U.S. Patent 6,643,312 provides one means for implementing the above-described invention (for achieving a longer pulse width).

Conventionally, it is common practice to use the discharge current from a peaking capacitor Cp for laser oscillation. The gist of the invention of 6,643,312 is that the discharge current (secondary current) from a capacitor C2 is also used in addition to the discharge current (primary current) from the peaking capacitor Cp.

In other words, the feature of the invention of 6,643,312 resides in that the discharge current from the capacitor C2 is utilized to implement the technique for achieving a longer pulse width. It should be noted that in the 6,643,312 patent the capacitor C2 is specified as a capacitor in the final stage of the magnetic pulse compression circuit.



In this regard, the invention of the present application does not disclose any means for supplying the discharge current from the capacitor C2 between the electrodes. The invention of the present application is based on the assumption that the discharge current from the capacitor Cp is supplied between the electrodes. Therefore, even the concepts of "a primary current" and "a secondary current" as recited in claim 1 of 6,643,312 are not present in the invention of the present application.

Further, claim 1 of the present application recites "a first half-cycle and at least one half-cycle subsequent to the first half-cycle", whereas claim 1 of 6,643,312 recites "at least two half cycles". In this regard also, the two inventions differ from each other.

As stated above, claim 1 of 6,643,312 is a technique whereby the discharge current from the capacitor C2 is superimposed on the discharge current from the peaking capacitor Cp. Therefore, the second half cycle in which the current flowing direction is

the same as in the initial half cycle is significant in claim 1 of 6,643,312.

The above described difference precisely shows that claim 1 of the present application and claim 1 of 6,643,312 are essentially different inventions.

Still further, the specification of 6,643,312 cites the invention of the present application in its patent specification. Referring to column 3, line 22 of the issued 6,643,312 patent, Japanese patent application Hei-11-261628 (which is one of the applications from which this present application claims priority). This shows that the Examiner in that application recognized the invention of the present application as prior art and still patented the 6,643,312 claims, because the inventions are different from each other.

Even still further, when considering the In re Vogel and Vogel case cited by the Examiner in making the rejection, the case teaches that this present application is not statutory double patenting. In the Vogel case, it is noted that where one document claimed "halogen" and the other claimed "chlorine", the two did not claim identical subject matter (halogen being broader than chlorine) and there was no double patenting.

> Thus, the invention defined by a claim reciting "halogen" is not the same as that defined by a claim reciting "chlorine," because the former is broader than the latter.

Applicants have an analogous situation here. The issued patent recites, among other things, that the pulse of laser operation is effected by an initial half-cycle . . . and by at least two half-cycles continuing thereafter.

Compare this with claim 1 of the present application, which recites:

> wherein a laser oscillating operation is performed by a first half-cycle and at least one half-cycle subsequent to the first half cycle.

Thus, applicants' situation does not result in statutory double patenting, because the concept of "halogen" vs. "chlorine" not resulting in double patenting, as noted in Vogel, would apply here also.

Claims 2 and 3 are rejected under nonstatutory obviousness type double patenting over claims 1, 2 and 7 of 6,643,312. Applicants respectfully traverse.

Claims 2 and 3 of the present application are sufficiently different from the cited claims of the cited 6,643,312 patent, as to not be obvious in view thereof. Especially in view of the above noted remarks regarding the statutory double-patenting rejection, it is submitted that claims 2 and 3 would not be barred from being patented under the obviousness type double patenting standard.

In light of the above noted remarks, this application is believed in condition for allowance and notice thereof is respectfully solicited. The Examiner is asked to contact applicant's attorney at 503-224-0115 if there are any questions.

Respectfully submitted,

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